



E-FAN-02-016

September 2002

# Food Insecurity in Higher Income Households

By Mark Nord and C. Philip Brent

## Abstract

Twenty percent of U.S. households classified as food insecure had midrange or high incomes, according to responses to the 1995-97 Current Population Survey. This study investigates the extent to which these households are food insecure and what proportion of them may have been identified as food insecure because of problems in the measurement methods. The study finds that a small proportion, at most, of measured food insecurity among middle- and high-income households appears to be due to misunderstanding of questions or to random or erratic responses. Some households in these income groups are food insecure due to factors such as uneven incomes or changes in household composition during the year or to the existence of multiple economic units in the same household.

Keywords: Food security, food security measurement, food insecurity, hunger

## Contents

Summary.....	ii
Introduction.....	1
Data and Methods .....	4
Findings .....	7
Discussion and Summary .....	17
Future Research Directions.....	19
Appendix: Measuring Household Food Insecurity and Hunger .....	20
References.....	26
Tables and Figures .....	27

## Summary

Most of the food-insecure households in the United States have low levels of income. However, a substantial number of middle-income households, and a few high-income households, also register some level of food insecurity in the nationally representative Current Population Survey (CPS) Food Security Supplements. A smaller number of those households register hunger. During the 3-year period from 1995 to 1997, these middle- and high-income households accounted for 20 percent of all food-insecure households and 17 percent of all households with hunger in the Nation. This apparent anomaly raises questions about the measurement process. Are these households really food insecure, or are their scores false positives? This issue is examined by comparing households classified as food secure, food insecure without hunger, and food insecure with hunger in three income groups, using data from the 1995, 1996, and 1997 CPS Food Security Supplements. First, household patterns of responses to the individual questions in the food security and hunger series are compared across the three income groups: low-income (below 1.85 percent of the poverty line), middle/high-income (over 1.85 percent of the poverty line, and high-income (above \$50,000). Then households classified as food secure, food insecure without hunger, and food insecure with hunger in the three income groups are compared on a wide array of characteristics that are known, or expected to be, associated with food security status.

Item scores and item-fit statistics, which measure how households at various levels of food insecurity respond to each question in the food security scale, are generally consistent across income groups. This suggests that food insecurity as measured is the same phenomenon in the three income groups. Item scores from Rasch-model scales, estimated independently for low- and middle/high-income households, were highly correlated between the groups ( $r = .994$ ), indicating that households in the two income groups that registered the same level of food insecurity generally affirmed the same subset of questions in the food security and hunger series. Even among households with annual incomes above \$50,000, response patterns did not differ much from those of low-income households. There is evidence in these analyses that some of the food insecurity and hunger registered by middle- and high-income households is due to misunderstanding of questions or erratic responses; response patterns of these households are

somewhat less consistent than those of low-income households. But these inconsistencies are not serious or widespread, and they can account for only a small proportion of the incidence of food insecurity registered by these households.

In their responses to the survey, both low-income and middle/high-income households registered similar associations of food insecurity and hunger with household structure, alternative indications of food stress, coping strategies for avoiding food insufficiency, use of food assistance and other welfare programs, employment, income in an earlier period, migration, and change in household composition. This suggests that determinants of, and responses to, food insecurity are similar across the income range even though the prevalence of food insecurity and hunger is much lower among households with higher incomes.

The association of food insecurity and hunger with household characteristics also sheds light on why these conditions are registered by households in the middle- and high-income range. For the most part, the food insecurity and hunger registered by these households reflect real instances of constrained access to food, despite their relatively high annual incomes, because:

- ***Income was uneven during the year.*** Even though annual income was normally adequate to meet food needs, during part of the year it fell much lower. Food insecurity and hunger questions are referenced to the previous 12 months, and the household was food insecure during a low-income period.
- ***Multiple families (or economic units) resided in the same household and did not fully share resources.*** In the CPS, both food insecurity and income are reported at the household level. In some cases, the unit with food insecurity is not the unit with the higher income.
- ***Household composition changed during the year.*** For example, a person or family may have had low income and been food insecure during part of the year and then married a higher income person. In the CPS, combined annual income of the two units is recorded for the household.

Some higher income food insecurity may also reflect unusual or unexpected economic need during the year, such as uninsured accident, illness, or loss. However, this hypothesis could not be tested with the available data.